10/523,286A Yong Chu 06-X1-2007

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                IPC version 2007.01 thesaurus available on STN
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                CA/CAplus enhanced with patent applications from India
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NEWS 11 FEB 15 RUSSIAPAT enhanced with pre-1994 records
NEWS 12 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13 FEB 26 MEDLINE reloaded with enhancements
NEWS 14 FEB 26 EMBASE enhanced with Clinical Trial Number field
NEWS 15 FEB 26 TOXCENTER enhanced with reloaded MEDLINE
NEWS 16 FEB 26
                IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 17 FEB 26 CAS Registry Number crossover limit increased from 10,000
                to 300,000 in multiple databases
NEWS 18 MAR 15
                WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19 MAR 16
               CASREACT coverage extended
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                MARPAT now updated daily
NEWS 21 MAR 22 LWPI reloaded
NEWS 22 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 23 APR 02 JICST-EPLUS removed from database clusters and STN
NEWS 24 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 26 APR 30
                CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 27 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 28 MAY 01
                New CAS web site launched
NEWS 29 MAY 08
                CA/CAplus Indian patent publication number format defined
                RDISCLOSURE on STN Easy enhanced with new search and display
NEWS 30 MAY 14
                fields
NEWS 31 MAY 21
                BIOSIS reloaded and enhanced with archival data
        MAY 21
                TOXCENTER enhanced with BIOSIS reload
NEWS 32
NEWS 33 MAY 21
                CA/CAplus enhanced with additional kind codes for German
                patents
NEWS 34 MAY 22
                CA/CAplus enhanced with IPC reclassification in Japanese
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NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),

AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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chain nodes :

10 11 12 13 14 15 16 17 18 23 30

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

3-30 7-13 8-10 10-11 10-12 13-14 13-15 13-16 14-17 14-23 17-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

3-30 5-7 6-9 7-8 7-13 8-9 10-11 10-12 13-14 13-15 13-16 14-17 14-23

17-18

exact bonds :

8-10

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

G1:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G2:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,SO2

G3:OH, MeO, EtO, n-PrO, i-PrO, n-BuO, i-BuO, s-BuO, t-BuO, NH, NH2

G4:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

23:CLASS 30:CLASS

L1 STRUCTURE UPLOADED

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chain nodes :

10 11 12 13 14 15 16 17 18 23 30

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

3-30 7-13 8-10 10-11 10-12 13-14 13-15 13-16 14-17 14-23 17-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

1-2 1-6 2-3 3-4 3-30 4-5 5-6 5-7 6-9 7-8 7-13 8-9 10-11 10-12 13-14

13-15 13-16 14-17 14-23 17-18

exact bonds :

8-10

G1:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G2:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,SO2

G3:OH, MeO, EtO, n-PrO, i-PrO, n-BuO, i-BuO, s-BuO, t-BuO, NH, NH2

G4:H,CH3,CH2,CH,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 23:CLASS 30:CLASS

L2 STRUCTURE UPLOADED

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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 12:18:41 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 83 TO ITERATE

100.0% PROCESSED 83 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

1114 TO 2206

PROJECTED ANSWERS:

22 TO 418

L3

11 SEA SSS SAM L2

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FULL SEARCH INITIATED 12:18:57 FILE 'REGISTRY'
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100.0% PROCESSED 1567 ITERATIONS

238 ANSWERS

11 ANSWERS

SEARCH TIME: 00.00.01

L4 238 SEA SSS FUL L2

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L5 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2007:14092 CAPLUS Full-text

DOCUMENT NUMBER:

146:121818

TITLE: Preparation o

Preparation of indolesulfonamides as non-nucleoside

HIV reverse transcriptase inhibitors for the treatment

of HIV infection and AIDS

INVENTOR(S): Wolkenberg, Scott E.; Zhao, Zhijian; Lindsley, Craiq

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 81pp., which

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PAT | ENT : | NO. | | | KIN | D | DATE | | j | APPL | ICAT: | ION I | NO. | | Di | ATE | |
|----------|-------|----------|--------|-----|-----|-----|----------|------|-----|----------|-----------|-------|---------|-----|-----|------|---------|
| WO | 2007 | 0023 | 68 | | A2 | - | 2007 | 0104 | , | WO 2 | 006-1 | JS24 | 134 | | 2 | 0060 | 623 |
| WO | 2007 | 0023 | 68 | | A3 | | 2007 | 0503 | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KM, | KN, | KΡ, |
| | | KR, | KZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, |
| | | MW, | MX, | MZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RS, | RU, |
| | | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SY, | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, |
| | | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | | | | |
| | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | ĒĒ, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, |
| | | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| | | KG, | KZ, | MD, | RU, | TJ, | TM, | AP, | EA, | EP, | OA | | | | | | |
| PRIORITY | APP | LN. | INFO | . : | | | | | 1 | US 2 | 005- | 6946 | 00P | 1 | P 2 | 0050 | 628 |
| | | | | | | | | | 1 | US 2 | 005- | 7073 | 64P | 3 | P 2 | 0050 | 811 |
| OTHER SO | URCE | (S): | | | MAR | PAT | 146: | 1218 | 18 | | | | | | | | |

OTHER SOURCE(S):

GI

AB Title compds. I [wherein R1 = halo, CN, NO2, etc.; R2 = H, (un) substituted alkyl, alkoxy, etc.; R3 = (un)substituted alkyl, (hetero)aryl, cycloalkyl, etc.; R2 and R3 may link together to form ring; R4 = COOH, ester or amido; R5 = H or R1] and their pharmaceutically acceptable salts were prepd. as nonnucleoside HIV reverse transcriptase inhibitors. For instance, sulfonylation of pyrrolidine with Et 5-bromo-3-(chlorosulfonyl)-1- (phenylsulfonyl)-1Hindole-2-carboxylate followed by amidation/deprotection with NH3 in methanol gave II. This product showed inhibition against HIV reverse transcriptase both in vitro and in vivo with IC50 values of less than 20 .mu.M. It also showed inhibition of HIV replication with IC95 < 1 .mu.M, and exhibited no cytotoxicity at its IC95 concn. Therefore, I and their pharmaceutical compns. are useful in the inhibition of HIV reverse transcriptase, the prophylaxis and treatment of infection by HIV and in the prophylaxis, delay in the onset, and treatment of AIDS.

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1236618 CAPLUS Full-text

DOCUMENT NUMBER: 144:100358

TITLE: Structure-activity relationship studies of

3-dodecanoylindole-2-carboxylic acid inhibitors of cytosolic phospholipase A2.alpha.-mediated arachidonic acid release in intact platelets: variation of the

keto moiety

AUTHOR(S): Ghasemi, Afshin; Elfringhoff, Alwine Schulze; Lehr,

Matthias

CORPORATE SOURCE: Institute of Pharmaceutical and Medicinal Chemistry,

University of Muenster, Muenster, D-48149, Germany Journal of Enzyme Inhibition and Medicinal Chemistry

SOURCE: Journal of Enzyme Inhibition and (2005), 20(5), 429-437

CODEN: JEIMAZ; ISSN: 1475-6366

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Recently we found that 1-methyldodecanoylindole-2-carboxylic acid (1) and 1[2-(4-carboxyphenoxy)ethyl]-3-dodecanoylindole-2-carboxylic acid (4) were
inhibitors of the cytosolic phospholipase A2.alpha. (cPLA2.alpha.)-mediated
arachidonic acid release in calcium ionophore A23187-stimulated human
platelets with IC50-values of 4.8 .mu.M (1) and 0.86 .mu.M (4). We have now
replaced the 3-acyl residue of these compds. by alkylated sulfinyl-, sulfonyl-,
sulfinamoyl-, sulfamoyl-, carbonylamino-, or carbonylaminomethylsubstituents. Structure-activity relation studies revealed that the
pronounced cellular activity of 4 strongly depends on the presence of the 3acyl moiety. Surprisingly, when testing 4 and its derivs. in an assay with
the isolated cPLA2, none of these compds. showed an inhibitory potency at 10
.mu.M indicating that they do not inhibit cPLA2 .alpha. in the cells by a
direct interaction with the active site of the enzyme.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2005:544994 CAPLUS Full-text

DOCUMENT NUMBER: 143:168111

TITLE: Suspension type sulfonylurea herbicide and the

preparation method thereof

INVENTOR(S):
Ren, Tianrui

PATENT ASSIGNEE(S): Institute of Process Engineering, Chinese Academy of

Sciences, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp.

given

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|----------|
| | | | | |
| CN 1524418 | A | 20040901 | CN 2004-10039557 | 20040209 |
| PRIORITY APPLN. INFO.: | | | CN 2003-105379 A | 20030227 |

AB The invention relates to a suspension type herbicide contg. sulfonylureas, in particular a suspension type herbicide of 1-(2-methoxycarbonylindole-3-sulfonyl)-3-(4,6-dimethoxypyrimidine-2-group)urea, wherein the herbicide comprises 10 wt% of reactive component, 1-3 wt% of surface-active agent of

laurel polyoxyethylene, 15-25 wt% carrying agent of alta-mud, or / and 0.1-1 wt% penetrating agent of sodium dodecylbenzene sulfonate, or / and 3-5 wt% suspension aiding agent of lignin sulfonate, or / and 0.05-0.5 wt% de-icing fluid of ethylene alc., glycerin or glycerin, and the rest of disperse medium of deionized water. By evenly mixing the above content and grinding until the solid grain diam. is less than 10 um, the herbicide according to the invention can be prepd.

L5 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2004:142899 CAPLUS Full-text

DOCUMENT NUMBER:

140:181323

TITLE:

Preparation of indolesulfonamides as tyrosine kinase inhibitors, in particular insulin-like growth factor 1

receptor (IGF-1R) inhibitors

INVENTOR(S):

Dinsmore, Christopher J.; Beshore, Douglas C.;

Bergman, Jeffrey M.; Lindsley, Craig W.

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA

PCT Int. Appl., 191 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

CODEN: PIXXD2

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | TENT | NO. | | | KIN | | | | | APPI | LICAT | 'ION | NO. | | Di | ATE | | | |
|---------|--------|------|------|-----|-----------|-------|------|------|------|------|---------------|------|------|-----|-----|-------|-----------------|--------|------|
| WC | 2004 | 0143 | 00 | | | | 2004 | | | wo 2 | 2003- | US24 | 393 | | 2 | 0030 | 305 | | |
| WC | 2004 | 0143 | 00 | | A3 | | 2004 | 0422 | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
| | | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KR, | KZ, | LC, | LK, | LR, | LS, | | |
| | | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, | PG, | | |
| | | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | TJ, | TM, | TN, | TR, | | |
| | | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU | ZA, | ZM, | ZW | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ | TZ, | ŪĠ, | ZM, | ZW, | ΑM, | AZ, | BY, | | |
| | | KG, | KZ, | MD, | RU, | ТJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | | FI, | FR, | GB, | GR, | HU, | ΙE, | IT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, | | |
| | | BF, | ВĴ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ. | GW, | ML, | MR, | NE, | SN, | TD, | TG | Punet | RAGO |
| CF | 2493 | 575 | | | A1 | | 2004 | 0219 | | CA 2 | 2003- | 2493 | 575 | | 2 | 0030 | 305 | Curret | rp |
| AU | J 2003 | 2571 | 70 | | A1 | | 2004 | 0225 | | AU 2 | 2003- | 2571 | 70 | | 2 | 0030 | 305 | | |
| EF | 1534 | 268 | | | A2 | | 2005 | 0601 | | EP 2 | 2003- | 7849 | 04 | | 2 | 00301 | 305 | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE | MC, | PT, | | |
| | | ΙE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | ÆU, | SK | | | |
| JE | 2006 | 5046 | 68 | | T | | 2006 | 0209 | | JP 2 | 2004- | 5277 | 39 | | 2 | 0030 | 305 | | |
| US | 2006 | 1287 | 83 | | Al | | 2006 | 0615 | | US 2 | 2005 <u>-</u> | 5232 | 86 1 | | 2 | 0050 | 203 | | |
| PRIORIT | Y API | LN. | INFO | .: | | | | | | US 2 | 2002 - | 4024 | 82P | : | 2 | 0020 | 3 09 | | |
| | | | | | | | | | • | WO 2 | 2003- | US24 | 393 | 1 | V 2 | 0030 | 305 | | |
| OTHER S | OURCE | (S): | | | CAS | REAC' | Г 14 | 0:18 | 1323 | : M2 | ARPAT | 140 | :181 | 323 | | | | | |

OTHER SOURCE(S):

CASREACT 140:181323; MARPAT 140:181323

GΙ

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$$R^2$$

$$\begin{array}{c} \text{Cl} & \overset{\text{O}}{\searrow} \overset{\text{H}}{\searrow} & \text{Me} \\ & \overset{\text{N}}{\searrow} & \text{NH}_2 \end{array}$$

Title compds. I [wherein Rla, Rlb = independently H, OH and derivs., NH2 and AΒ derivs., (un) substituted cyclo/alkyl, aryl, heterocyclyl; R2 = H, OH and derivs., NH2 and derivs., (un) substituted cyclo/alkyl, aryl; R3 = H, halo, (CH2)pOH and derivs., CO2H and derivs., CH:CH2 and derivs., NO2, (CH2)pNH2 and derivs., NHCHO and derivs., NHS(O)oR4, S(O)oR4, S(O)oNH2 and derivs., CN, (CH2)pNH(CH2)pH and derivs., etc.; R4 = (un)substituted cyclo/alkyl, aryl, heterocyclyl; m = 0-6; n = 0-6; q = 0-4; p = 0-6; o = 0-2; and their pharmaceutically acceptable salts, hydrates and stereoisomers] were prepd. for inhibiting, modulating and/or regulating signal transduction of both receptortype and non-receptor type tyrosine kinases. For example, I was prepd. in 5 steps via substitution of benzenesulfonyl chloride with Et 5-chloro-1H-indole-2-carboxylate, sulfonation with concd. H2SO4 in DCM, chlorination with oxalyl chloride in the presence of DCM/DMF, substitution with methylamine hydrochloride in the presence of TEA/DCM, and one-pot amidation with NH3/phenylsulfonyl group deprotection in i-PrOH. I inhibited insulin-like growth factor 1 receptor (IGF-1R) or Insulin receptor kinase with an IC50 .ltoreq. 100 .mu.M. Thus, I and their formulations are useful for treating cancer, diabetes, an autoimmune disorder, a hyperproliferative disorder, aging, acromegaly, and Crohn's disease.

L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:610408 CAPLUS Full-text

DOCUMENT NUMBER:

137:154844

TITLE:

Preparation of heterocyclic sulfonamides for treatment

of endothelin-mediated disorders

INVENTOR(S):

Wu, Chengde; Blok, Natalie; Patricia, Woodard Timothy;

Keller, Karin; Woodard, Patricia

PATENT ASSIGNEE(S):

Texas Biotechnology Corporation, USA

SOURCE:

U.S., 65 pp., Cont.-in-part of U.S. 6,248,767.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

: 5

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

GI For diagram(s), see printed CA Issue.

AB Reaction of 1-methylindole-2-carboxylic acid, the corresponding methyl ester (I), and of Et indole-2-carboxylate with thionyl chloride afforded sulfinyl chlorides (II, III, and IV, resp.). Thionyl chloride and N,1-dimethylindole-2-carboxamide led to sulfide (V, R = CONHMe) and imide sulfoxide (VI). III was converted to several sulfinamides (VII) on treatment with amines. VII were oxidized with permanganate to sulfonamides (VIII). Treatment of III with hydrazine in the cold gave disulfide (IX, R = CO2Me) (X), which was transformed to IX (R = CONHNH2) on heating with hydrazine. Monosulfide (V, R = CO2Me), disulfide X, and trisulfide XI were obtained from the reaction of I with sulfur monochloride. Reaction of 1-methylindole-2-carboxylic acid hydrazide with sulfuryl chloride led to the dichloro compd. (XII), and I with sulfuryl chloride afforded the tetrachloro compd. (XIII) and the hexachloro compd. (XIV).

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L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002:610408 CAPLUS Full-text

DOCUMENT NUMBER: 137:154844

TITLE: Preparation of heterocyclic sulfonamides for treatment

of endothelin-mediated disorders

INVENTOR(S): Wu, Chengde; Blok, Natalie; Patricia, Woodard Timothy;

Keller, Karin; Woodard, Patricia

PATENT ASSIGNEE(S): Texas Biotechnology Corporation, USA

SOURCE: U.S., 65 pp., Cont.-in-part of U.S. 6,248,767.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

| PA' | TENT | NO. | | | KIN | D | DATE | | | APP | LICAT | ION 1 | NO. | | D | ATE | |
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| บร | 6432 | 994 | | | B1 | - | 2002 | 0813 | | US | 2000- | 4035 | 99 | | 2 | 0000: | 327 |
| us | 5783 | 705 | | | A | | 1998 | 0721 | | US | 1997- | 8477 | 97 | | 1 | 9970 | 428 |
| US | 6248 | 767 | | | В1 | | 2001 | 0619 | | US | 1997- | 9384 | 44 | | 1: | 9970 | 926 |
| WO | 9849 | | | | | | | | | | 1998- | | | | | | |
| | W: | AL, | AM, | AT, | AU, | AZ | BA, | BB, | BG, | BR | , BY, | CA, | CH, | CN, | CU, | CZ, | DE, |
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| | | ΚP, | KR, | KZ, | LC, | LK | LR, | LS, | LT, | LU | , LV, | MD, | MG, | MK, | MN, | MW, | MX, |
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| | RW: | GH, | GM, | KE, | LS, | MW | SD, | SZ, | UG, | ZW | , AT, | BE, | CH, | CY, | DE, | DK, | ES, |
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| | | | | | | | NE, | | | | | | | | | | |
| US | 2002 | 0912 | 70 | | A1 | | 2002 | 0711 | | US | 2001- | 2956 | 1 | | 2 | 0011 | 220 . |
| US | 6683 | 103 | | | B2 | | 2004 | 0127 | | | | | | | | | |
| AU | 2002 | 3012 | 28 | | A1 | | 2003 | 0227 | | ΑU | 2002- | 3012 | 28 | | 2 | 0020 | 920 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | US | 1997- | 8477 | 97 | 7 | A2 1 | 9970 | 428 |
| | | | | | | | | | | US | 1997- | 9384 | 44 | 7 | A2 1: | 9970 | 926 |
| | | | | | | | | | | WO | 1998- | US66 | 80 | 1 | W 1 | 9980 | 402 |
| | | | | | | | | | | ΑU | 1998- | 6950 | 4 | 7 | A3 1 | 9980 | 402 |
| | | | | | | | | | | US | 2000- | 4035 | 99 | 7 | A3 2 | 0000 | 327 |
| OTHER S | OHRCE | (S) · | | | MAR | тασ | 137. | 1548 | 44 | | | | | | | | |

OTHER SOURCE(S): MARPAT 137:154844

GΙ

The title sulfonamides Ar2-SO2-NH-Ar1 [I; Ar1 = (un)substituted 5-6 membered AB heteroaryl; Ar2 = thienyl, furyl, pyrrolyl] and their pharmaceutically acceptable salts, useful for modulating or altering the activity of the endothelin family of peptides, were prepd. and formulated. In particular, formulations of sodium salts of N- (isoxazolyl)thienylsulfonamides, N-(isoxazolyl)furylsulfonamides and N-(isoxazolyl)pyrrolylsulfonamides, are provided. A table of approx. 300 compds. I, and over 30 detailed synthetic examples, are given. For instance, 5-methylbenzo[d][1,3]dioxole in CH2Cl2 reacted with HCl and formaldehyde in the presence of Bu4NBr to give 5-(chloromethyl)-6- methylbenzo[d][1,3]dioxole. Grignard reaction of this with N-methoxy-N-methyl-3-(4-chloro-3-methyl-5-isoxazolylsulfamoyl)-2thiophenecarboxamide gave title compd. II, which was isolated as the free acid, dissolved in EtOAc, and treated with satd. ag. NaHCO3, to give the sodium salt II.Na in 98.2% purity. Alternatively, treatment of II with an equimolar amt. of Na2HPO4 in aq. MeCN gave the salt II.H3PO4.2Na. A soln. of II. Na and USP dextrose in phosphate buffer was filtered into vials and lyophilized, to give injectable II.Na for use at 25 mg/mL or 12.5 mg/mL. The aforementioned salts both showed improved soly. and stability in various aq. media, such as Labrasol, compared to the free acid II.

IT 187164-89-2P, N-(4-Bromo-3-methyl-5-isoxazolyl)-2-carboxy-1methylindole-3-sulfonamide 187164-92-7P, N-(4-Chloro-3-methyl-5isoxazolyl)-2-[[(4-tolyl)amino]carbonyl]-1-methylindole-3-sulfonamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(drug candidate; prepn. of heterocyclic sulfonamides for treatment of endothelin-mediated disorders)

RN 187164-89-2 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

RN 187164-92-7 CAPLUS
CN 1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5-

isoxazoly1)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 271 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L5 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:574544 CAPLUS Full-text

DOCUMENT NUMBER:

135:122516

TITLE:

Preparation of indolesulfonylureas as herbicides

INVENTOR (S):

Ren, Tianrui

PATENT ASSIGNEE(S):

Inst. of Chemical Metallurgy, Academia Sinica; Peop.

Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| | | | | |
| CN 1277195 | Α | 20001220 | CN 1999-108041 | 19990611 |
| CN 1117731 | В | 20030813 | | |
| PRIORITY APPLN. INFO.: | | | CN 1999-108041 | 19990611 |

OTHER SOURCE(S):

CASREACT 135:122516

AB Title compds. were prepd. by reaction of aminopyrimidine deriv. or amino-s-triazine deriv. with chlorosulfonyl isocyanate in org. solvent at -5 to -10.degree. for 10-180 min, and sulfonylating 2- alkoxycarbonylindoles in org. solvent in the presence of TiCl4 at 40-90.degree. for 4-16 h. The org. solvent is dichloroethane, acetone, THF, nitrobenzene, or dioxane. The urea deriv. is used as herbicide. The wettable power and emulsified conc. are prepd.

IT 85963-87-7P 350802-77-6P 350802-78-7P

350802-79-8P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of indolesulfonylureas as herbicides)

RN 85963-87-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX

RN 350802-77-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-chloro-6-methoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 350802-78-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-chloro-6-methoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

350802-79-8 CAPLUS

RN

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

IT 350802-80-1P 350802-81-2P 350802-82-3P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of indolesulfonylureas as herbicides).

RN 350802-80-1 CAPLUS

CN 1H-Indole-2-carboxylic acid, 5-chloro-3-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 350802-81-2 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4-chloro-6-methyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 350802-82-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[((4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:507533 CAPLUS Full-text

DOCUMENT NUMBER:

135:102580

TITLE:

Pharmaceutical and veterinary uses of endothelin

antagonists for treatment of laminitis and other

conditions, and preparation thereof

INVENTOR(S):

Brock, Thomas A.; Ward, Patrick R. Texas Biotechnology Corporation, USA

PATENT ASSIGNEE(S):

PCT Int. Appl., 363 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | TENT : | NO. | | | KIN | D | DATE | | | APPL | ICAT: | ION I | . 01 | | D | ATE | |
|---------|-----------------------------|------|-----|-----|-----|-----|----------|------|------|------|-------|----------|------|-------------|-----|------|-----|
| | | | | | | - | - | | | | | - | | - - | - | | |
| WO | 2001 | 0492 | 89 | | A1 | | 2001 | 0712 | 1 | WO 2 | 000-1 | US35 | 280 | | 2 | 0001 | 227 |
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| | | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KΡ, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, |
| | LV, MA, MI | | | | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, |
| | | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, | YU, |
| | | ZA, | ZW, | AM, | AZ, | BY, | KG, | KZ, | MD, | RU, | TJ, | TM | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | ŪĠ, | ZW, | AT, | BE, | CH, | CY, |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | |
| AU | BJ, CF, CG AU 2001024567 | | | | | | 2001 | 0716 | | AU 2 | 001- | 2456 | 7 | | 2 | 0001 | 227 |
| PRIORIT | Y APP | .: | | | | | • | US 1 | 999- | 1741 | 25P | | P 1 | 9991: | 231 | | |
| | | | | | | | | | , | WO 2 | 000-1 | US35 | 280 | 1 | W 2 | 0001 | 227 |

OTHER SOURCE(S): MARPAT 135:102580

Pharmaceutical and veterinary uses of endothelin antagonists are provided. In particular, methods of treatment of laminitis, such as equine and bovine laminitis, by administration of one or more endothelin antagonists are provided. Methods are also provided for the treatment, prevention, or amelioration of one or more symptoms of menopause; osteoporosis and metabolic bone disorders; climacteric disorders, including hot flushes or flashes, abnormal clotting patterns, urogenital discomfort and increased incidence of cardiovascular disease, and other disorders assocd. with the redn. in ovarian function in women; pre-eclampsia; and control and management of labor during pregnancy by administration of endothelin antagonists.

IT 187164-89-2 187164-92-7

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(endothelin antagonists for veterinary or pharmaceutical use in treatment of laminitis and other conditions)

RN 187164-89-2 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

RN 187164-92-7 CAPLUS

CN 1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2001:449271 CAPLUS Full-text

DOCUMENT NUMBER:

135:46080

TITLE:

Formulation of heterocyclic sulfonamides for treatment

of endothelin-mediated disorders

INVENTOR(S):

Blok, Natalie; Wu, Chengde; Woodard, Patricia; Keller,

Karin; Kogan, Timothy

PATENT ASSIGNEE(S):

Texas Biotechnology Corp., USA

SOURCE:

U.S., 58 pp., Cont.-in-part of U.S. 5,783,705.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| | | | | |
| US 6248767 | B1 | 20010619 | US 1997-938444 | 19970926 |
| US 5783705 | A | 19980721 | US 1997-847797 | 19970428 |
| ĊA 2281090 | A1 | 19981105 | CA 1998-2281090 | 19980402 |
| CA 2281090 | C | 20050607 | | |
| CA 2496680 | A1 | 19981105 | CA 1998-2496680 | 19980402 |

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                              19981124
                                       AU 1998-69504
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                                                               19980402
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                           20011026 NZ 1998-336898
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                                         AU 2002-301228
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                                         US 1997-847797
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                                                           A 19970926
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                                                           A3 19980402
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                                                           A3 19980402
                                         EE 1999-469
                                                           A 19980402
                                         EP 1998-915281
                                                            A3 19980402
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                                                           A3 19980402
                                                          A3 19980402
W 19980402
                                         JP 1998-540982
                                         WO 1998-US6680
                                         US 2000-403599 A3 20000327
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AB Formulations of pharmaceutically acceptable salts of thienyl-, furyl- and pyrrolyl-sulfonamides, and methods for modulating or altering the activity of the endothelin family of peptides using the formulations, are provided. In particular, formulations of sodium salts of N-(isoxazolyl) thienylsulfonamides, N-(isoxazolyl) furylsulfonamides and N-(isoxazolyl)pyrrolylsulfonamides, and methods using these sulfonamide salts for inhibiting the binding of an endothelin peptide to an endothelin receptor, by contacting the receptor with the sulfonamide salt, are provided. Methods for treating endothelin-mediated disorders by administering effective amts. of one or more of these sulfonamide salts or prodrugs thereof, that inhibit or increase the activity of endothelin, are also provided. In particular, pharmaceutically acceptable salts of compds. Ar2-SO2-NH-Ar1 [I; where Ar1 = 5membered heteroaryl; Ar2 = thienyl or thionaphthyl; salt is with an alkali metal or mineral acid] are claimed. A table of approx. 300 compds. I, and over 30 detailed synthetic examples, are given. For instance, 5methylbenzo[d][1,3]dioxole in CH2Cl2 reacted with HCl and formaldehyde in the presence of Bu4NBr to give 5-(chloromethyl)-6-methylbenzo[d][1,3]dioxole. Grignard reaction of this with N-methoxy-N-methyl-3-(4-chloro-3-methyl-5isoxazolylsulfamoy1)-2- thiophenecarboxamide gave title compd. II, which was isolated as the free acid, dissolved in EtOAc, and treated with satd. aq. NaHCO3, to give the sodium salt II.Na in 98.2% purity. Alternatively, treatment of II with an equimolar amt. of Na2HPO4 in aq. MeCN gave the salt II. H3PO4.2Na. A soln. of II. Na and USP dextrose in phosphate buffer was filtered into vials and lyophilized, to give injectable II.Na for use at 25 mg/mL or 12.5 mg/mL. The aforementioned salts both showed improved soly. and stability in various aq. media, such as Labrasol, compared to the free acid

IT 187164-89-2P, N-(4-Bromo-3-methyl-5-isoxazolyl)-2-carboxy-1methylindole-3-sulfonamide 187164-92-7P, N-(4-Chloro-3-methyl-5isoxazolyl)-2-[[(4-tolyl)amino]carbonyl]-1-methylindole-3-sulfonamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. and formulation of heterocyclic sulfonamides for treatment of endothelin-mediated disorders)

RN 187164-89-2 CAPLUS

CN

1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

RN 187164-92-7 CAPLUS

1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5-CN isoxazolyl)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX

REFERENCE COUNT:

219 THERE ARE 219 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:553556 CAPLUS Full-text

DOCUMENT NUMBER:

133:150463

TITLE:

Preparation of 3-substituted indole-2-carboxylic acids

for the inhibition of monocyte chemoattractant protein-1 and/or RANTES induced chemotaxis

Faull, Alan Wellington; Kettle, Jason

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

Astrazeneca UK Limited, UK PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT 1 | NO. | | | KINI | D 1 | DATE | | 1 | APPL | ICAT: | ION I | NO. | | D | ATE | |
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| | | | | | - | | | | | | | | | - | | |
| WO 2000 | 0461 | 99 | | A2 | : | 2000 | 0810 | 1 | WO 2 | 000-0 | GB284 | 4 | | 2 | 0000 | 131 |
| WO 2000 | 0461 | 99 | | A3 | | 2000 | 1130 | | | | | | | | | |
| W: | ΑE, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CR, | CU, |
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| | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, |
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| | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | |
| CA 2355 | 734 | | | A1 | ; | 2000 | 0810 | (| CA 2 | 000- | 2355 | 734 | | 2 | 0000 | 131 |

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| R: . | AT, BE, CH, | DE, DK | , ES, FR, | GB, GR, IT, LI, LU, | NL, S | E, MC, PT, |
| | IE, SI, LT, | LV, FI | , RO | | | |
| JP 20025 | 36362 | T | 20021029 | JP 2000-597270 | | 20000131 |
| ZA 20010 | 05017 | Α | 20020919 | ZA 2001-5017 | | 20010619 |
| NO 20010 | 03768 | Α | 20011001 | NO 2001-3768 | | 20010801 |
| US 68333 | 87 | B1 | 20041221 | US 2001-889516 | | 20011002 |
| PRIORITY APPL | N. INFO.: | | | GB 1999-2455 | A | 19990205 |
| | | | | WO 2000-GB284 | W | 20000131 |
| OTUED COMPORT | ۹۱. | маррат | 133.1504 | 63 | | |

OTHER SOURCE(S): MARPAT 133:150463

GI

RN

The title compds. [I; X = CH2, SO2; R1 = (un) substituted aryl, heteroaryl; R2 = CO2H, CN, COCH2OH, etc.; R3 = OR15 (wherein R15 = substituted alkyl or cycloalkyl, (un) substituted heteroaryl), S(O)qR15 (q = 0-2), (CH2)sCO2H (s = 0-4), etc.; R4-R7 = H, (un) substituted hydrocarbyl, heterocyclyl, etc.] and their pharmaceutically acceptable salts, amides or esters, useful in the prepn. of a medicament for the inhibition of monocyte chemoattractant protein-1 and/or RANTES induced chemotaxis, were prepd. and formulated. Thus, hydrolysis of the corresponding ester afforded 93% II which showed IC50 of 6.86 .mu.M against hMCP-1 receptor binding.

IT 287725-14-8P 287725-36-4P 287725-37-5P 287725-38-6P 287725-40-0P 287725-41-1P

287725-38-6P 287725-40-0P 287725-41-1P 287725-43-3P 287725-44-4P 287725-45-5P

287725-46-6P 287725-47-7P 287725-49-9P

287725-51-3P 287725-52-4P 287725-53-5P

287725-54-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 3-substituted indole-2-carboxylic acids for the inhibition of monocyte chemoattractant protein-1 and/or RANTES induced chemotaxis) 287725-14-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[(2-aminoethyl)amino]sulfonyl]-1-[(3,4-dichlorophenyl)methyl]- (9CI) (CA INDEX NAME)

RN 287725-36-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[(2-hydroxyethyl)amino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-37-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[bis(2-hydroxyethyl)amino]sulfonyl]-1[(3,4-dichlorophenyl)methyl]- (9CI) (CA INDEX NAME)

RN 287725-38-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[[2-(1H-imidazol-4-yl)ethyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-40-0 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[(5-methyl-3-isoxazolyl)amino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-41-1 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[(3-furanylmethyl)methylamino]sulfonyl]- (9CI) (CA INDEX NAME)

$$CH_2$$
 N —Me
 CO_2H
 CO_2H

RN 287725-43-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[[2-(4-morpholinyl)ethyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-44-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[(2-pyridinylmethyl)amino]sulfonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{C1} \\ \text{CH}_2 \\ \text{N} \\ \text{CO}_2\text{H} \\ \text{O} \\ \text{NH-CH}_2 \\ \text{N} \end{array}$$

RN 287725-45-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[(2,2-dimethoxyethyl)amino]sulfonyl]- (9CI) (CA INDEX NAME)

O OME
$$O = S - NH - CH_2 - CH - OME$$

$$CO_2H$$

$$N - CH_2 - C1$$

RN 287725-46-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[(2-propynylamino)sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-47-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[bis(2-methoxyethyl)amino]sulfonyl]-1[(3,4-dichlorophenyl)methyl]- (9CI) (CA INDEX NAME)

RN 287725-49-9 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[[(2-hydroxyphenyl)methyl]methylamino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-51-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[(1H-benzimidazol-2-ylmethyl)amino]sulfonyl]-1-[(3,4-dichlorophenyl)methyl]- (9CI) (CA INDEX NAME)

RN 287725-52-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[(3-isoxazolylamino)sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-53-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[[1-(1H-tetrazol-5-yl)ethyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

RN 287725-54-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(3,4-dichlorophenyl)methyl]-3-[[[2-[[(dimethylamino)sulfonyl]amino]ethyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1999:640160 CAPLUS Full-text

DOCUMENT NUMBER:

131:271803

TITLE:

Thienyl-, furyl- and pyrrolyl-sulfonamides and derivatives thereof that modulate the activity of

endothelin

INVENTOR(S):

Chan, Ming Fai; Wu, Chengde; Raju, Bore Gowda; Kogan, Timothy; Kois, Adam; Verner, Erik Joel; Castillo, Rosario Silvestre; Yalamorri, Venkatachalapathi;

Balaji, Vitukudi Narayanaiyengar

PATENT ASSIGNEE(S):

Texas Biotechnology Corp., USA

SOURCE:

U.S., 82 pp., Cont.-in-part of U.S. Ser. No. 477,223.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

10

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

| PAT | CENT | NO. | | | KINI |) | DATE | | 1 | APPL | ICAT: | ION I | NO. | | D | ATE | • |
|-----|------|-----|-----|-----|------|----------|------|------|-----|------|-------|-------|-----|-----|-----|-------|------|
| | | | | | | - | | | | | | | | | _ | | |
| US | 5962 | 490 | | | Α | | 1999 | 1005 | 1 | US 1 | 996- | 7211 | 33 | | 1 | 9960 | 927 |
| US | 5464 | 853 | | | Α | | 1995 | 1107 | 1 | US 1 | 993-: | 1421 | 59 | | 1 | 99310 | 021. |
| US | 5514 | 691 | | | Α | | 1996 | 0507 | 1 | US 1 | 993-: | 1425 | 52 | | 1: | 99310 | 021 |
| US | 5591 | 761 | | | A | | 1997 | 0107 | 1 | US 1 | 994-2 | 2222 | 37 | | 1: | 99404 | 105 |
| US | 5571 | 821 | | | Α | | 1996 | 1105 | 1 | US 1 | 994-2 | 2470 | 72 | | 1: | 9940! | 520 |
| US | 5594 | 021 | | | Α | | 1997 | 0114 | 1 | US 1 | 995-4 | 1772 | 23 | | 1 | 9950 | 606 |
| WO | 9631 | 492 | | | A1 | | 1996 | 1010 | . 1 | WO 1 | 996-1 | JS47! | 59 | | 1: | 99604 | 404 |
| | W: | AL, | AM, | AT, | AU, | AZ, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CZ, | DE, | DK, | EE, |
| | | ES, | FI, | GB, | GE, | HU, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LK, | LR, | LS, | LT, |
| | | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, | SE, |
| | | SG, | SI | | | | | | | | | | | | | | |
| | RW: | KE, | LS, | MW, | SD, | SZ, | ŪĠ, | AT, | BE, | CH, | DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN | |
| CA | 2261 | 760 | | | A1 | | 1998 | 0402 | (| CA 1 | 997-2 | 2261 | 760 | | 1: | 9970 | 926 |
| CA | 2261 | 760 | | | C | | 2005 | 0329 | | | | | | | | | |
| WO | 9813 | 366 | | | A1 | | 1998 | 0402 | 1 | WO 1 | 997-1 | JS17 | 402 | | 1: | 9970 | 926 |
| | W : | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | DE, |
| | | DK, | EE, | ES, | FI, | GB, | GE, | GH, | HU, | ID, | IL, | IS, | JP, | ΚE, | KG, | KP, | KR, |
| | | ΚZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NZ, |
| | | PL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | UA, | υĢ, |
| | | UZ, | VN, | YU, | zw | | | | | | | | | | | | |
| | RW: | GH, | KE, | LS, | MW, | SD, | SZ, | ŪĠ, | ZW, | ΑT, | BE, | CH, | DE, | DK, | ES, | FI, | FR, |
| | | GB, | GR, | ΙE, | ΙT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, |
| | | GN, | ML, | MR, | NE, | SN, | TD, | TG | | | | | | | | | |
| | 9745 | | | | | | | | | AU 1 | 997-4 | 4505 | 9 | | 1: | 9970: | 926 |
| AU | 7362 | | | | | | | | | | | | | | | | |
| EP | 9465 | 52 | | | A1 | | 1999 | 1006 | : | ÉP 1 | 997- | 9436 | 29 | | 1: | 9970 | 926 |

| EP | 9465 | 52 | | | В1 | | 2004 | 0707 | | | | | | | | | | | |
|----------|-------|------|------|-----|------|-----|------|------|-----|----|------|------|-----|------|-----|------------|-----|------|-----|
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | 2, I | Г, L | I, | LU, | NL, | SE | , M | IC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | | |
| CN | 1231 | 664 | | | Α | | 1999 | 1013 | | CN | 199 | 7-19 | 834 | 13 | | | 199 | 709 | 26 |
| BR | 9711 | 550 | | | A | | 2000 | 0118 | | | | | | | | | 199 | 709 | 26 |
| JP | 2000 | 5076 | 07 | | T | | 2000 | 0620 | | JP | 1998 | 8-51 | 597 | 19 | | | 199 | 709 | 926 |
| JP | 3743 | 520 | | | B2 | | 2006 | 0208 | | | | | | | | | | | |
| NZ | 3347 | 97 | | | Α | | 2001 | 0223 | | NZ | 199 | 7-33 | 479 | 7 | | | 199 | 709 | 26 |
| US | 6420 | 567 | | | B1 | | 2002 | 0716 | | US | 199 | 7-93 | 832 | 25 | | | 199 | 709 | 26 |
| JP | 2002 | 3088 | 75 | | Α | | 2002 | 1023 | | JP | 200 | 2-10 | 161 | .3 | | | 199 | 709 | 26 |
| EP | 1342 | 721 | | | A1 | | 2003 | 0910 | | ΕP | 200 | 3-72 | 40 | | | | 199 | 709 | 926 |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | e, I | Γ, L | I, | LU, | NL, | SE | , M | IC, | PT, |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | AL | | | | | | | | | | |
| AT | 2706 | 69 | | | T | | 2004 | 0715 | | AT | 199 | 7-94 | 362 | 29 | | | 199 | 709 | 926 |
| CN | 1530 | 366 | | | A | | 2004 | 0922 | | CN | 200 | 3-20 | 031 | .584 | 78 | | 199 | 709 | 926 |
| PT | 9465 | 52 | | | T | | 2004 | 1029 | | PT | 199 | 7-94 | 362 | 29 | | | 199 | 709 | 26 |
| ES | 2224 | 271 | | | T3 | | | 0301 | | ES | 199 | 7-94 | 362 | 29 | | | 199 | 709 | 26 |
| NO | 9901 | 388 | | | A | | 1999 | 0527 | | NO | 199 | 9-13 | 88 | | | | 199 | 903 | 322 |
| US | 6331 | 637 | | | Bl | | 2001 | 1218 | | US | 199 | 9-27 | 428 | 30 | | | 199 | 903 | 322 |
| KR | 2000 | 0486 | 81 | | A | | 2000 | 0725 | | KR | 199 | 9-70 | 262 | 29 | | | 199 | 903 | 326 |
| AU | 9935 | 803 | | | Α | | 1999 | 0916 | | ΑU | 199 | 9-35 | 803 | } | | | 199 | 906 | 522 |
| AU | 7265 | 95 | | | B2 | | 2000 | 1116 | | | | | | | | | | | |
| US | 2002 | 0912 | 72 | | A1 | | 2002 | 0711 | | US | 200 | 1-11 | 610 |) | | | 200 | 111 | L05 |
| US | 6632 | 829 | | • | B2 | | 2003 | 1014 | | | | | | | | | | | |
| US | 2003 | 2080 | 84 | | A1 | | 2003 | 1106 | | | 200 | | | | | | 200 | 305 | 28 |
| PRIORITY | APP | LN. | INFO | . : | | | | | | US | 198 | 7-10 | 086 | 55 | | A2 | 198 | 3709 | 25 |
| | | | | | | | | | | US | 199 | 0-41 | 619 | 9 | | | 199 | | |
| | | | | | | | | | | | 199 | | | | | | 199 | | |
| | | | | | | | | | | US | 199 | 3-10 | 012 | 25 | | В2 | 199 | 307 | 730 |
| | | | | | | | | | | | 199 | | | | | A2 | 199 | 9307 | 730 |
| | | | | | | | | | | US | 199 | 3-14 | 215 | 59 | | | 199 | | |
| | | | | | | | | | | | 199 | | | | | A2 | 199 | 310 | 21 |
| | | | | | | | | | | US | 199 | 3-14 | 263 | 31 | | В2 | 199 | 310 | 21 |
| | | | | | | | | | | US | 199 | 4-22 | 228 | 37 | | A2 | 199 | 9404 | 105 |
| | | | | | | | | | | US | 199 | 4-24 | 707 | 72 | | A2 | 199 | 405 | 520 |
| | | | | | | | | | | | 199 | | | _ | | A2 | 199 | 9504 | 104 |
| | | | | | | | | | | | 199 | | | | | | 199 | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | ΑŲ | 199 | 6-55 | 367 | 7 | | A | 199 | 9604 | 104 |
| | | | | | | | | | | | 199 | | | | | | 199 | | |
| | | | | | | | | | | EР | 199 | 7-94 | 362 | 29 | | A 3 | 199 | 709 | 926 |
| | | | | | | | • | | | JP | 199 | 8-51 | 597 | 79 | | A3 | 199 | 709 | 926 |
| | | | | | | | | | | US | 199 | 7-93 | 832 | 25 | | А3 | 199 | 709 | 926 |
| | | | | | | | | | | | 199 | | | | | W | 199 | | |
| | | | | | | | | | | US | 200 | 1-11 | 610 |) | | A 3 | 200 | 11: | L05 |
| OTHED CO | TIDCE | 101. | | | MADE | ጥለ | 121. | 2710 | 12 | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 131:271803 GI

III

Thienyl-, furyl- and pyrrolyl-sulfonamides, and methods for modulating or AB altering the activity of the endothelin family of peptides, are provided. In particular, the disclosure includes N-(isoxazolyl)thienylsulfonamides, N-(isoxazolyl)furylsulfonamides, and N-(isoxazolyl)pyrrolylsulfonamides, and methods using these sulfonamides for inhibiting the binding of an endothelin peptide to an endothelin receptor. The compds. are described by the formula Ar2SO2NHAr1 [I; Ar1 = (un)substituted aryl, particularly isoxazolyl; Ar2 = biol. effective group for inhibiting endothelin binding by .gtoreq. 50% at .ltoreq.100 .mu.M, notably thienyl, furyl, pyrrolyl, etc.]. Methods for treating endothelin-mediated disorders by administering effective amts. of I or their prodrugs are also provided. Such disorders include hypertension, cardiovascular disease, asthma, hypertension, inflammatory disease, glaucoma, etc. Approx. 190 synthetic examples are given, and numerous example compds. were prepd., tested, and/or claimed. For instance, 5-amino-4-bromo-3methylisoxazole was treated with NaH in THF, followed by thiophene-2-sulfonyl chloride, to give 34% title compd. II. The similarly prepd. title compd. III had IC50 values of 0.024 .mu.M for ETA receptors and 7.95 .mu.M for ETB receptors, indicating substantial selectivity for ETA.

187164-89-2P, N-(4-Bromo-3-methyl-5-isoxazolyl)-2-carboxy-1methylindole-3-sulfonamide 187164-92-7P, N-(4-Chloro-3-methyl-5isoxazolyl)-2-[[(4-tolyl)amino]carbonyl]-1-methylindole-3-sulfonamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of thienyl-, furyl- and pyrrolyl-based sulfonamides and analogs as endothelin agonists and antagonists)

RN 187164-89-2 CAPLUS

IT

CN

RN

1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

187164-92-7 CAPLUS

CN 1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5-isoxazolyl)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1998:721695 CAPLUS Full-text

DOCUMENT NUMBER: 129:343488

TITLE: Preparation of heteroaromatic sulfonamides as

endothelin antagonists

INVENTOR(S): Wu, Chengde; Blok, Natalie; Kogan, Timothy; Keller,

Karin; Woodard, Patricia

PATENT ASSIGNEE(S): Texas Biotechnology Corp., USA

SOURCE: PCT Int. Appl., 205 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

| PA | TENT | NO. | | | KIN | | DATE | | | | | | | | | : | DATE | |
|---------|-------|------|------|------------|----------|---|------|------|-----|------|----|-------|-------|-----|------------|----|------------|------------|
| | | | | | | | | | | | | | | | | | | |
| WC | 9849 | | 214 | 3 CD | A1 | | | 1105 | | | _ | - | | | CDI | | 19980 | |
| | w: | | | | | | | | | | | | | | | | , CZ, | |
| | | | | - | - | - | - | | | | • | • | | • | | | , KE, | |
| | | | | | | | | | - | | | | - | - | | | , MW, | - |
| | | | | | | | | | SE, | S | ġ, | SI, | SK, | SL, | TJ, | TW | , TR, | TT, |
| | DLI | - | - | - | - | - | YU, | | *** | | | 3 m | D | GT. | 617 | | D.// | 5 0 |
| | RW: | | | | | | | | | | | | | | | | , DK, | |
| | | | | | | | | | | | | PI, | SE, | BF, | BJ, | CF | , CG, | CI, |
| *** | 5500 | - | GA, | GN, | - | | | SN, | • | | | | | . = | | | | |
| | 5783 | | | | A | | | 0721 | | | | | | | | | 19970 | |
| | 6248 | | | | B1 | | 2001 | 0619 | | US | 15 | 997- | 9384 | 44 | | | 19970 | |
| | 2281 | | | | A1 C | | | 1105 | | | | 998- | 2281 | 090 | | | 19980 | 402 |
| | 2281 | | | | | | | 0607 | | | | | | | | | | |
| | 9869 | | | | A | | | 1124 | | ΑU | 15 | 998- | 5950 | 4 | | | 19980 | 402 |
| | 7491 | | | | B2 | | | 0620 | | | | | 0150 | 0.1 | | | | |
| | 9803 | | | | A1 | | | 0223 | | EP | 15 | 998- | 9152 | 8 T | | | 19980 | 402 |
| EF | 9803 | | D.D. | 011 | B1 | | | 0330 | | ~ | | - m | | | 277 | 0. | W 0 | ъ. |
| | R: | | SI, | | | | | FR, | GB, | GF | Κ, | тт, | шт, | ъо, | ИL, | SE | , MC, | Ρ1, |
| FF | 9900 | | 51, | ш., | цу, A | | | 0615 | | ਸ਼ਸ਼ | 10 | 999- | 169 | | | | 19980 | 402 |
| | 4156 | | | | B1 | | | 1015 | | خدخد | 1. | ,,,, | 109 | | | | 19900 | 402 |
| | 9812 | | | | Δ | | | 0725 | | BB | 10 | 998- | 1225 | R | | | 19980 | 402 |
| | 3368 | | | | A A | | | 1026 | | | | | 3368 | | | | 19980 | |
| JE | 2001 | 5206 | 43 | | т | | | 1030 | | | | | 5409 | | | | 19980 | |
| | 3455 | | | | B2 | | | 1014 | | •- | | | 3103 | - | | | 13300 | |
| | 2000 | | | | A2 | | | 1128 | | HU | 20 | 000- | 1442 | | | | 19980 | 402 |
| | 1313 | | | | Α | | | 0831 | | ΙL | 19 | 98- | 1313 | 18 | | | 19980 | |
| IL | 1569 | 77 | | | Α | | 2005 | 0320 | | ΙL | 19 | 98- | 1569 | 77 | | | 19980 | |
| | 2921 | | | | ${f T}$ | | 2005 | 0415 | | ΑТ | 19 | 98- | 9152 | 81 | | | 19980 | |
| | 9905 | | | | Α | | 1999 | 1228 | | | | | 5221 | | | | 19991 | 026 |
| MX | 9909 | 860 | | | Α | | 2000 | 0331 | | MX | 19 | 999- | 9860 | | | | 19991 | 027 |
| US | 6432 | 994 | | | B1 | | 2002 | 0813 | | US | 20 | 000-4 | 4035 | 99 | | | 20000 | 327 |
| нк | 1028 | 033 | | | A1 | | 2005 | 0506 | | НK | 20 | 000- | 1073 | 66 | | | 20001 | 117 |
| IN | 2002 | DN00 | | | Α | | 2007 | 0302 | | ΤIA | 20 | JUZ-1 | DN 72 | B | | | 20020 | 729 |
| AU | 2002 | 3012 | 28 | | A1 | | 2003 | 0227 | | ΑU | 20 | 002-3 | 3012 | 28 | | | 20020 | 920 |
| PRIORIT | Y APP | LN. | INFO | .: | | | | | | | | | | | | | 19970 | 428 |
| | | | | | | | | | | US | 19 | 97- | 9384 | 44 | | Α | 19970 | 927 |
| | | | | | | | | | | | | | 6950 | 4 | | Δ3 | 19980 | 402 |
| | | | | | | | | | | IL | 19 | 998- | 1313 | 18 | | А3 | 19980 | 402 |

US 1999-174104P P 19991231

OTHER SOURCE(S): MARPAT 129:343488

R2SO2NHR1 [I; R1 = bi- or tricycloalkyl, heterocyclyl, (hetero)aryl; R2 = AB CH:CHPh, thienyl, (iso)quinolyl, indolyl, etc.] were prepd. Thus, 5-amino-4bromo-3-methylisoxazole was amidated by thiophene-2-sulfonyl chloride to give I (R1 = 4-bromo-3-methyl-5-isoxazolyl, R2 = 2-thienyl). Data for biol. activity of I were given.

IT 187164-89-2P 187164-92-7P

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heteroarom. sulfonamides as endothelin antagonists)

RN 187164-89-2 CAPLUS

CN1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

RN187164-92-7 CAPLUS

CN 1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5isoxazolyl)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 12 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN L5 ACCESSION NUMBER: 1997:97729 CAPLUS Full-text

DOCUMENT NUMBER: 126:171477

TITLE: Thienyl-, furyl- and pyrrolyl sulfonamides and

derivatives thereof that modulate the activity of

endothelin

INVENTOR(S): Chan, Ming F.; Raju, Bore G.; Kois, Adam; Verner, Erik

J.; Wu, Chengde; Castillo, Rosario S.; Yalamoori,

Venkatachalapathi; Balaji, Vitukudi N.

PATENT ASSIGNEE(S): Texas Biotechnology Corporation, USA

SOURCE: U.S., 77 pp., Cont.-in-part of U.S. Ser. No. 247,072. CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

| | ENT NO. | | | |) | DATE | | I | APP | LICAT | 'ION I | NO. | | D | ATE | |
|----------|---|-------|-----|--------------|-----|--------------|------|-----|------|----------------|--------|------|-----|------|------|------|
| | 5594021 | | | | | | | | | 1995- | | | | | 9950 | |
| | 5464853 | | | | | | | | | 1993- | | | | | 9931 | |
| | 5514691 | | | | | 1996 | 0507 | τ | JS : | 1993- | 1425 | 52 | | 1: | 9931 | 021 |
| | 5591761 | | | Α | | 1997 | 0107 | τ | JS : | 1994- | 2222 | 87 | | 1: | 9940 | 405 |
| US | 5571821 | | | Α | | 1996 | 1105 | Ţ | JS : | 1994 - | 2470 | 72 | | 1: | 9940 | 520 |
| | 2217169 | | | A1 | | 1996 | 1010 | (| CA | 1994- 1996- | 2217 | 169 | | 1: | 9960 | 404 |
| CA | 2217169 | | | С | | 2005 | | | | | | | | | | |
| | 2288439 | | | A1 | | 1996 | 1010 | (| CA | 1996- | 2288 | 439 | | 1: | 9960 | 404 |
| | 2288439 | | | C | | 2003 | 0401 | | | | | | | | | |
| CA | 2420614 | | | A1 | | 1996 | 1010 | (| CA | 1996- | 2420 | 614 | | 1 | 9960 | 404 |
| WO | 9631492 | | | A1 | | 1996 | 1010 | V | O | 1996- | US47 | 59 | | . 1 | 9960 | 404 |
| | W: AL | , AM, | ΑT, | AU, | AZ, | BB, | BG, | BR, | BY | , CA, | CH, | CN, | CZ, | DE, | DK, | EE, |
| | ES | FI, | GB, | GE, | HU, | IS, | JP, | ΚE, | KG | , KP, | KR, | KZ, | LK, | LR, | LS, | LT, |
| | | LV, | | | | | | | | | | | | | | |
| | SG | , sī | | | | | | | | | | | | | | |
| | RW: KE | | MW, | SD, | SZ, | UG, | AT, | BE, | CH | , DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | IE | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ | , CF, | CG, | CI, | CM, | GΑ, | GN | |
| AU | 9655367 | | | Α | | 1996 | 1023 | 7 | ŪΑ | 1996- | 5536 | 7 | | 1 | 9960 | 404 |
| AU | 711968 | | | B2 | | 1996 1999 | 1028 | | | | | | | | | |
| EP | 819125 | | | A1 | | 1998 | 0121 | F | ΞP | 1996- | 9126 | 00 | | 1 | 9960 | 404 |
| EP | 819125 | | | В1 | | 2003 | 0618 | | | | | | | | | |
| | R: AT | , BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR | , IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | , SI, | | | | | | • | | | • | , | • | • | • | · |
| CN | 1184470 | | | A | | | 0610 | (| CN | 1996- | 1939 | 73 | | 1 | 9960 | 404 |
| CN | 1130355 | | | R | | 2003 | | | | | | | | | | |
| JР | 11507019 | 5 | | \mathbf{T} | | 1999 | 0622 | į | JP | 1996- | 5305 | 24 | | 1 | 9960 | 404 |
| JР | 3233642 | | | В2 | | 2001 | 1126 | | | | | | | | | |
| NZ | 1150701! 3233642 306734 500282 | | | Α | | 2000 | 0128 | 1 | ΝZ | 1996- | 3067 | 34 | | 1 | 9960 | 404 |
| NZ | 500282 | | | Α | | 2000 | 0128 | 1 | NZ | 1996- | 5002 | 82 | | 1 | 9960 | 404 |
| | 9802034 | | | A2 | | | | | | 1998- | | | | | | |
| EP | 1048657 | | | | | | | | | 2000- | | | | | 9960 | |
| | R: AT | | | | DK, | ES, | FR, | GB, | GR | , IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | , si, | | | | | • | | | | | | | | | |
| JP | 2002030 | | | | | | 0129 | · | JP | 2001- | 1716 | 92 | | 1 | 9960 | 404 |
| JP | 3527217 | | | В2 | | 2004 | 0517 | | | | | | | | | |
| AT | 3527217 243203 819125 | | | \mathbf{T} | | 2003 | 0715 | 7 | AΤ | 1996- | 9126 | 00 | | 1 | 9960 | 404 |
| PT | 819125 | | | T | | 2003 | 1128 |] | PT | 1996- | 9126 | 00 | | 1 | 9960 | 404 |
| | 2201181 | | | Т3 | | | 0316 | | | 1996- | | | | | 9960 | |
| PL | 186854 | | | В1 | | 2004 | 0331 |] | PL | 1996- | 3227 | 07 | | 1 | 9960 | 404 |
| ບຣ | 5962490 | | | A | | 1999 | 1005 | 1 | US | 1996- | 7211 | 83 | | 1 | 9960 | 927 |
| TW | 492966 | | | В | | 2002 | 0701 | 7 | ΓW | 1996 | 8511 | 2218 | | 1 | 9961 | 004 |
| NO | 9704577 | | | Α | | 1997 | 1204 | 1 | ОИ | 1997- | 4577 | | | 1 | 9971 | .003 |
| NO | 315607 | | | В1 | | 2003 | 0929 | | | | | | | | | |
| MX | 9707630 | | | A | | 2000 | 0331 | I | MΧ | 1997 | -7630 | | | 1 | 9971 | 003 |
| нк | 1001769 | | | A1 | | 2004 | 0130 |] | НK | 1998 | -1008 | 44 | | 1 | 9980 | 205 |
| US | 6331637 | | | В1 | | 2001 | 1218 | 1 | US | 1999 | 2742 | 80 | | 1 | 9990 | 322 |
| | 9935803 | | | Α | | 1999 | 0916 | 1 | UΑ | 1999 | 3580 | 3 | | 1 | 9990 | 622 |
| AU | 726595 | | | B2 | | 2000 | 1116 | | | | | | | | | |
| | 2002095 | 041 | | A1 | | 2002 | 0718 | 1 | US | 2001 | -6256 | | | 2 | 0011 | 204 |
| US | 6613804 | | | B2 | | 2003 | 0902 | | | | | | | | | |
| JP | 2004043 | 495 | | Α | | 2004 | 0212 | , | JP | 2003- | -3182 | 61 | | 2 | 0030 | 910 |
| PRIORITY | APPLN. | INFO | . : | | | | | 1 | US | 1993 | -6520 | 2 | | B2 1 | 9930 | 520 |
| | | | | | | | | | | | | | | | | |

RN 187164-89-2 CAPLUS

CN1H-Indole-2-carboxylic acid, 3-[[(4-bromo-3-methyl-5isoxazolyl)amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

RN 187164-92-7 CAPLUS

1H-Indole-2-carboxamide, 3-[[(4-chloro-3-methyl-5-CN isoxazolyl)amino]sulfonyl]-1-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

ANSWER 13 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1995:376570 CAPLUS Full-text

DOCUMENT NUMBER:

122:290806

TITLE:

N-[[1-Methyl-2-(methoxycarbonyl)indol-3-yl]sulfonyl]-

N'-heteroarylureas: synthesis and structure studies

AUTHOR (S):

Sorokin, V. I.; Golosov, S. N.; Kornilov, A. N.;

Klyuev, N, A.; Gorozhankin, S. K.; Yufit, D. S.;

Struchkov, Yu. T.; Drozd, V. N.

CORPORATE SOURCE:

Mosk. S-kh. Akad., Moscow, Russia

SOURCE:

Khimiya Geterotsiklicheskikh Soedinenii (1994), (3),

359-68

CODEN: KGSSAQ; ISSN: 0132-6244

PUBLISHER:

Latviiskii Institut Organicheskogo Sinteza

DOCUMENT TYPE:

Journal Russian

LANGUAGE: GI

| US | 1993-100125 | B2 | 19930730 |
|----|--------------|-----------|----------|
| US | 1993-100565 | B2 | 19930730 |
| US | 1993-142159 | A2 | 19931021 |
| US | 1993-142552 | A2 | 19931021 |
| US | 1993-142631 | B2 | 19931021 |
| US | 1994-222287 | A2 | 19940405 |
| US | .1994-247072 | A2 | 19940520 |
| US | 1995-417075 | B2 | 19950404 |
| US | 1987-100865 | Ä2 | 19870925 |
| US | 1990-416199 | A2 | 19900515 |
| US | 1995-416199 | Α | 19950404 |
| US | 1995-477223 | Α | 19950606 |
| ΑU | 1996-55367 | Α | 19960404 |
| CA | 1996-2217169 | А3 | 19960404 |
| EP | 1996-912600 | А3 | 19960404 |
| JP | 1996-530524 | A3 | 19960404 |
| JP | 2001-171692 | A3 | 19960404 |
| WO | 1996-US4759 | W | 19960404 |
| US | 1996-721183 | A1 | 19960927 |
| US | 1997-913331 | A3 | 19971107 |

OTHER SOURCE(S):

MARPAT 126:171477

GI

AB Thienyl-, furyl- and pyrrolyl-sulfonamides and methods for modulating or altering the activity of the endothelin family of peptides are provided. The compds. include sulfonamides Ar2SO2NHAr1 [I; Ar1 = (un) substituted (cyclo)alk(en/yn)yl, aryl, heterocyclyl, bi- or tricyclyl; Ar2 = (un) substituted thienyl, furyl, pyrrolyl, benzothienyl, benzofuryl, indolyl]. In particular, N-(isoxazolyl) amides, and methods using them to inhibit binding of endothelin peptides to endothelin receptors, are provided. Methods for treating endothelin-mediated disorders by administering effective amts. of one or more compds. I, or prodrugs thereof, are also provided. Over 160 synthetic examples and the results of a variety of bioassays are given. instance, amidation of thiophene-2-sulfonyl chloride with 5-amino-4-bromo-3methylisoxazole after treatment of the latter with NaH in dry THF gave 34% of the amide II. In an endothelin receptor assay, the amide III had IC50 values of 0.0006 .mu.M and 1.99 .mu.M at ETA and ETB receptors, resp. IT 187164-89-2P 187164-92-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic sulfonamides as endothelin agonists and antagonists)

AB Title compds. I (Z = CH, N; R1 = H, Me; R2 = Me, OMe, NHMe, NMe2; R3 = Me, F, Cl, OMe, CCl3, ON:CMe2, cyclohexylideneiminoxy) were prepd. by treatment of sulfonamide II with oxalyl chloride and reaction of the sulfonyl isocyanate obtained with pyrimidinamines and 1,3,5-triazinamines. Electron-impact and FAB mass spectra were discussed.

IT 85963-88-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and x-ray anal. of)

RN 85963-88-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

IT 85953-37-3P 85953-38-4P 85953-49-7P 163125-47-1P 163125-48-2P 163125-49-3P 163125-50-6P 163125-51-7P 163125-52-8P 163125-53-9P 163125-54-0P 163125-55-1P 163125-56-2P

RN 85953-37-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-38-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-methoxy-6-methyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-49-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-47-1 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-fluoro-6-methoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-48-2 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-chloro-6-methoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-49-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[4-methoxy-6-(trichloromethyl)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-50-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-methyl-3-[[[[4-methyl-6-(methylamino)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-51-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[[4-(dimethylamino)-6-methyl-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-52-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[[4-(dimethylamino)-6-methoxy-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-53-9 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[4-[(cyclohexylideneamino)oxy]-6-(dimethylamino)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-54-0 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[[4-(dimethylamino)-6-[[(1-methylethylidene)amino]oxy]-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfon yl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-55-1 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 163125-56-2 CAPLUS

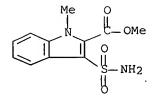
CN 1H-Indole-2-carboxylic acid, 3-[[[[[4-(dimethylamino)-6-methoxy-1,3,5-triazin-2-yl]methylamino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

IT 3678-05-5

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction with oxalyl chloride and heteroarylamines)

RN 3678-05-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-methyl-, methyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1995:227430 CAPLUS Full-text

DOCUMENT NUMBER:

122:49104

TITLE:

Preparation of herbicidal sulfonylureas.

INVENTOR(S):

Zimmerman, William T.

PATENT ASSIGNEE(S):

du Pont de Nemours, E. I., and Co., USA

SOURCE:

U.S., 45 pp. Cont.-in-part of U.S. Ser. No. 468,283.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT N | 10. | KIND | DATE | APPLICATION NO. | | DATE |
|---------------|-------------|--------|-----------|---------------------|----|----------|
| | | | | | | |
| US 53568 | 362 | A | 19941018 | US 1992-915838 | | 19920722 |
| WO 91106 | 68 | A1 | 19910725 | WO 1991-US23 | | 19910109 |
| ₩: | AU, CA, JP, | US | | | | |
| RW: | AT, BE, CH, | DE, DK | , ES, FR, | GB, GR, IT, LU, NL, | SE | |
| PRIORITY APPI | N. INFO.: | | | US 1990-468283 | A2 | 19900122 |
| | | | | WO 1991-US23 | W | 19910109 |

OTHER SOURCE(S):

MARPAT 122:49104

GI

AB

The sulfonylurea compds. (I-IV; Q=O,S,NR3;W=CR4,N;A=(un)substituted pyrimidin-2-yl or 1,3,5-triazin-2-yl; R,R2=H,Me;R1,R4=R,Cl,Br; R3=R,haloalakyl, allyl,

etc.;) are prepd. as pre- or postemergence herbicides and plant growth regulators. N-(1,1-dimethylethyl)-1-[2-[1,1-dimethylsilyloxy]ethyl]-1H-pyrrole-3-sulfonamide (prepn. given) in THF was treated, at -60.degree., with BuLi in hexane to give 3-[[(1,1-dimethylethyl)amino]sulfonyl]-1-[2-[(1,1-dimethylethyl)dimethylsilyloxy]et hyl]-1H-pyrrole-2-carboxylic acid, which upon treatment with KF in trifluoroacetic acid gave 3,4-dihydro-1-oxo-1H-pyrrolo[2,1-c][1,4]oxazine-8-sulfonamide. This was treated with Ph (4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]-1-oxo-1H-pyrrolo[2,1-c][1,4]oxazine-8-sulfonamide. The product gave pre- and postemergence control of a variety of weeds.

IT 136695-59-5P 136695-60-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of herbicidal sulfonylureas)

RN 136695-59-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[(1,1-dimethylethyl)amino]sulfonyl]-1-[2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]- (9CI) (CA INDEX NAME)

RN 136695-60-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:655644 CAPLUS Full-text

DOCUMENT NUMBER: 121:255644

TITLE: Indole derivatives as inhibitors of HIV reverse

transcriptase

INVENTOR(S): Williams, Theresa M.; Ciccarone, Terrence M.; Saari,

Walfred S.; Wai, John S.; Greenlee, William J.;

Balani, Suresh K.; Goldman, Mark E.; Hoffman, Jacob

M., Jr.; Lumma, William C., Jr.; et al.

PATENT ASSIGNEE(S):

Merck and Co., Inc., USA; Theoharides, Sharon, A.

PCT Int. Appl., 144 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA' | TENT 1 | NO. | | | KIN | 0 1 | DATE | | | | LIC | | | NO. | | | DATE | |
|---------|--------|-----|------|-----|-----|-----|------|------|-----|----|------|-------|-------|-----|-----|----|-------|-----|
| WO | 94193 | 321 | | | A1 | | 1994 | 0901 | | | | | | 94 | | | 19940 | 215 |
| | W: | AU, | BB, | BG, | BR, | BY, | CA, | CN, | CZ, | FI | , H | U, | JP, | KR, | ΚZ, | LK | , LV, | MG, |
| | | MN, | MW, | NO, | NZ, | PL, | RO, | RU, | SD, | SK | , U | Α, | UZ | | | | | |
| | RW: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR | 1, I | Ε, | IT, | LU, | MC, | NL | , PT, | SE, |
| | | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | ML | , M | R, | NE, | SN, | TD, | TG | | |
| | 21564 | | | | | | 1994 | 0901 | (| CA | 199 | 4 - 2 | 21564 | 420 | | | 19940 | 215 |
| | 9462 | | | | | | | | | | | | | | | | 19940 | |
| | 9405 | | | | | | | | | | | | | | | | | |
| EP | 6861 | | | | | | | 1213 | | | | | | | | | 19940 | |
| | | | BE, | CH, | • | • | • | • | • | | • | - | • | • | • | | , PT, | |
| | 11198 | | | | Α | | | 0403 | | | | | | | | | 19940 | |
| | 0850 | | | | | | | | | | | | | | | | 19940 | |
| | 74614 | | | | | | | | | | | | | | | | 19940 | |
| | 17578 | - | | | | | | | | | | | | | | | 19940 | |
| | 55278 | | | | | | | 0618 | | | | | | | | | 19950 | |
| | 9503 | | | | A | | | 0823 | | | | | | • | | | 19950 | |
| | 9503 | | | | A | | 1995 | 1024 | | | | | | | | | 19950 | |
| PRIORIT | Y APPI | LN. | INFO | . : | | | | | | | | | | | | | 19930 | |
| | | • | | | | | | | | | | | | | | | 19910 | |
| | | | | | | | | | | | | | | 50 | | | 19920 | |
| | | | | | | | | | | | | | | | | | 19920 | |
| | | | | | | | | | | | | | | | | | 19940 | |
| | | | | | | | | | ι | US | 199 | 4 - 2 | 27410 | 01 | | BI | 19940 | 711 |

OTHER SOURCE(S):

MARPAT 121:255644

GI

AB Novel indole compds. inhibit HIV reverse transcriptase (HIV RTR), and are useful in the prevention or treatment of infection by HIV and in the treatment of AIDS. The described compds. include I [X = H, Cl, F, Br, NO2, cyano, OH, alkoxy, (di)(alkyl)amino, alkylamido, alkylsulfonamido; Y = S, SO, SO2, O; R = (un)substituted alkyl, aryl, heterocyclyl, dialkylamino (except when Y = O); Z = (un)substituted CONH2, CSNH2, alkanoyl, alkoxycarbonyl, aminomethyl, cyano, etc.; R' = H, CHO, acyl, (un)substituted CONH2] and their salts and esters. Approx. 180 I are prepd., listed, and/or claimed. For example, 5-chloroindole-2-carboxylic acid was treated with excess NaH in DMF and then

ΙI

Balani, Suresh K.; Goldman, Mark E.; Hoffman, Jacob

M., Jr.; Lumma, William C., Jr.; et al.

PATENT ASSIGNEE(S):

Merck and Co., Inc., USA; Theoharides, Sharon, A.

SOURCE:

PCT Int. Appl., 144 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| I | | | | | | | | APPLICATION NO. | | | | | | | DATE | | | | | |
|----------|-----|------|-----|------|-----|--------|-----|-----------------|------|-----|---------------|------|--------|------|------|-----|----|----|------|-----|
| V | | 9419 | | | | | | | | | | | | | | | | | | |
| | | W: | AU, | BB, | BG, | BR, | BY, | CA, | CN, | CZ, | FI | :, I | HU, | JP, | KR, | ΚZ, | LK | , | LV, | MG, |
| | | | MN, | MW, | NO, | NZ, | PL, | RO, | RU, | SD, | SK | ζ, 1 | UA, | UZ | | | | | | |
| | | RW: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | ٤, : | ΙE, | IT, | LU, | MC, | NL | ٠, | PT, | SE, |
| | | | | | | • | • | CM, | | | | • | • | | | • | | | | |
| | | 2156 | | | | | | | | | | | | | | | | | | |
| | | 9462 | | | | | | | | | | | | | | | | | | |
| | | 9405 | | | | | | | | | | | | | | | | | | |
| I | ΞP | 6861 | 48 | | | A1 | | 1995 | 1213 | : | EΡ | 19 | 94 - 9 | 9096 | 63 | | | 19 | 9402 | 215 |
| | | | - | | | | | ES, | | | | | | | - | | | | | |
| (| CN | 1119 | 856 | | | A | | 1996 | 0403 | (| CN | 19 | 94 - : | 1915 | 86 | | | 19 | 9402 | 215 |
| | | 0850 | | | | | | 1996 | | | | | | | | | | | | |
| I | UE | 7461 | 4 | | | A2 | | 1997 | | | | | | | | | | 19 | 9402 | 215 |
| | | 1757 | | | | | | 1999 | 0226 | | \mathtt{PL} | 19 | 94-3 | 3104 | 10 | | | 19 | 9402 | 215 |
| | | 5527 | | | | | | 1996 | 0618 | 1 | US | 19 | 95-4 | 4889 | 57 | | | 19 | 950 | 507 |
| 1 | FI | 9503 | 954 | | | Α | | 1995 | 0823 | | FΙ | 19 | 95-3 | 3954 | | | | 19 | 950 | 323 |
| 1 | 00 | 9503 | 308 | | | Α | | 1995 | 1024 | | NO | 19 | 95-3 | 3308 | | | | 19 | 950 | 323 |
| PRIOR | ΙΤY | APP | LN. | INFO | . : | | | | | , | US | 19 | 93-2 | 2192 | 5 | | Α | 19 | 9302 | 224 |
| | | | | | | | | | | | US | 19 | 91- | 7560 | 13 | | В2 | 19 | 910 | 906 |
| | | | | | | | | | | • | US | 19 | 92- | 8322 | 60 | | B2 | 19 | 920 | 207 |
| | | | | | | | | | | • | US | 19 | 92- | 8667 | 65 | | B2 | 19 | 9204 | 109 |
| | | | | | | | | | | | | | | | 94 | | | | | |
| | | | | | | | | | | | US | 19 | 94-3 | 2741 | 01 | | В1 | 19 | 940' | 711 |
| OMITTED. | - | | (0) | | | 143 D. | ~~~ | 101 | 2556 | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 121:255644

GI

AB Novel indole compds. inhibit HIV reverse transcriptase (HIV RTR), and are useful in the prevention or treatment of infection by HIV and in the treatment of AIDS. The described compds. include I [X = H, Cl, F, Br, NO2, cyano, OH, alkoxy, (di)(alkyl)amino, alkylamido, alkylsulfonamido; Y = S, SO, SO2, O; R = (un)substituted alkyl, aryl, heterocyclyl, dialkylamino (except when Y = O); Z = (un)substituted CONH2, CSNH2, alkanoyl, alkoxycarbonyl, aminomethyl, cyano, etc.; R' = H, CHO, acyl, (un)substituted CONH2] and their salts and esters. Approx. 180 I are prepd., listed, and/or claimed. For example, 5-chloroindole-2-carboxylic acid was treated with excess NaH in DMF and then

with PhSSPh to give its 3-(phenylthio) deriv., which was amidated with 3-(aminomethyl)pyridine using BOP reagent and Et3N in DMF to give title compd. II, a preferred compd. I inhibited HIV RTR in vitro with IC50 of 3-35 nM for the most preferred compds. I also inhibited viral spread of HIV in cell cultures, with 95% inhibitory concns. (CIC95) of 3-400 nM for preferred compds.

IT 158561-83-2P 158561-85-4P 158561-86-5P 158561-87-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of indole derivs. as inhibitors of HIV reverse transcriptase)

RN 158561-83-2 CAPLUS

CN 1H-Indole-2-carboxylic acid, 5-chloro-3-[(cyclopropylamino)sulfonyl]-1-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)

RN 158561-85-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 5-chloro-3-[(cyclopropylamino)sulfonyl](9CI) (CA INDEX NAME)

RN 158561-86-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 5-chloro-3-[(phenylamino)sulfonyl]-1-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)

RN 158561-87-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 5-chloro-3-[(phenylamino)sulfonyl]- (9CI) (CA INDEX NAME)

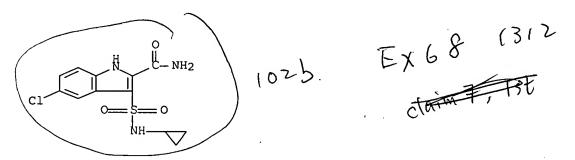
IT 158561-72-9P 158561-73-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of indole derivs. as inhibitors of HIV reverse transcriptase)

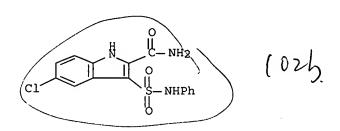
RN 158561-72-9 CAPLUS

CN 1H-Indole-2-carboxamide, 5-chloro-3-[(cyclopropylamino)sulfonyl]- (9CI) (CA INDEX NAME)



RN 158561-73-0 CAPLUS

CN 1H-Indole-2-carboxamide, 5-chloro-3-[(phenylamino)sulfonyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:608025 CAPLUS Full-text

DOCUMENT NUMBER:

115:208025

TITLE:

Preparation of herbicidal sulfonylureas

INVENTOR(S):

Zimmerman, William Thomas

PATENT ASSIGNEE(S):

du Pont de Nemours, E. I., and Co., USA

SOURCE:

PCT Int. Appl., 202 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| | | 37337 S | | | | **** | | D. 7. CO. | | | | | TT 0 1 T | 170 | | | D 3 (F) |
|-------|-----|---------|------|------|-----|------|-----|-----------|------|-----|-----|-------|----------|-------|-----|----|----------|
| | PAI | CENT 1 | NO. | | | KINI | , | DATE | | | APE | PICA. | I.TON | NO. | | | DATE |
| | | | | | | | - | | | | | | | | | | |
| 1 | WO | 9110 | 668 | | | A1 | | 1991 | 0725 | | WO | 1991 | -US2 | 3 | | | 19910109 |
| | | W: | ΑU, | CA, | JP, | US | | | | | | | | | | | |
| | | RW: | AT, | BE, | CH, | DE, | DK | , ES, | FR, | GB, | GF | R, IT | , LU | , NL, | SE | | |
| (| CA | 2074 | 163 | | | A1 | | 1991 | 0723 | | CA | 1991 | -2074 | 4163 | | | 19910109 |
| 1 | AU | 9171 | 655 | | | A | | 1991 | 0805 | | AU | 1991 | -716 | 55 | | | 19910109 |
| 1 | EΡ | 5119 | 93 | | | A1 | | 1992 | 1111 | | EР | 1991 | -902 | 615 | | | 19910109 |
| | | R: | AT, | BE, | CH, | DE, | DK | , ES, | FR, | GB, | GF | R, IT | , LI | , LU, | NL, | SE | 3 |
| | JP | 0550 | 3518 | | | T | | 1993 | 0610 | | JP | 1991 | -502 | 961 | | | 19910109 |
| 1 | US | 5356 | 862 | | | Α | | 1994 | 1018 | | US | 1992 | -915 | 838 | | | 19920722 |
| PRIOR | ITY | APP | LN. | INFO | .: | | | | | | US | 1990 | -468 | 283 | | A2 | 19900122 |
| | | | | | | | | | | | WO | 1991 | -US2 | 3 | ١. | A | 19910109 |
| OTHER | SC | URCE | (S): | | | MARI | PAT | 115: | 2080 | 25 | | | | | | | |

GI .

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB Title compds. LSO2NHCONAR [I; L = Q1-Q3, etc.; A = Q4,Q5, etc.; R,R2 = H, Me; R4,R4 = H, Me, C1, Br; W = CR4, N; Z1 = O, S, NR5; Z2 = O, NR5; Z2 = O, NR5; R5 = H, C1-4 (halo)alkyl, allyl, propargyl, C2-4 alkoxyalkyl; X = H, C1-4 alkyl, C1-4 alkoxy, halo, etc.; Y = H, C1-4 alkyl, C1-4 alkoxy, C3-5 cycloalkyl, cyano, etc.; Z = CH, N, CMe, CEt, CCl, CBr; X1 = Me, OMe, OEt, OCF2H; Y1 = O, CH2] were prepd. as herbicides. Thus, N-tert-butyl-1H-pyrrole-3-sulfonamide (prepn. from 3-bromo-N- triisopropylsilylpyrrole given) was Nalkylated by Me3CSi(Me)2OCH2CH2Br and the product was lithiated then treated with CO2 to give the 2-carboxy compd. This was treated with a mixt. of KF, H2O and CF3CO2H to give the deprotected product, which was cyclized by TosOH to give 3,4-dihydro-1-oxo-1H-pyrrolo[2,1-c][1,4]oxazine-8-sulfonamide. This was condensed with Ph (4-methoxy-6-methyl-1,3,5-triazin-2-yl)carbamate to give title compd. II. II at 16 g/ha postemergent gave complete control of Bromus tectorum and Setaria viridis.
- IT 136695-59-5P 136695-60-8P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as intermediate for herbicides)
- RN136695-59-5 CAPLUS
- 1H-Indole-2-carboxylic acid, 3-[[(1,1-dimethylethyl)amino]sulfonyl]-1-[2-CN [(tetrahydro-2H-pyran-2-yl)oxy]ethyl]- (9CI) (CA INDEX NAME)

RN 136695-60-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1983:405650 CAPLUS Full-text

DOCUMENT NUMBER: 99:5650

TITLE: Herbicidal indolesulfonamides

INVENTOR(S): Zimmerman, Donna Frieze

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: Eur. Pat. Appl., 82 pp.

. CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|---------------|-------------------|-----------------|----------|
| | | | |
| EP 70698 | A1 19830126 | EP 1982-303730 | 19820715 |
| EP 70698 | B1 19851113 | | |
| R: AT, BE, CH | , DE, FR, GB, IT, | LI, LU, NL, SE | |
| BR 8204028 | A 19830705 | BR 1982-4028 | 19820712 |
| JP 58018358 | A 19830202 | JP 1982-120709 | 19820713 |
| DK 8203191 | A 19830117 | DK 1982-3191 | 19820715 |
| AU 8286031 | A 19830224 | AU 1982-86031 | 19820715 |
| AU 550321 | B2 19860320 | | |
| ES 514039 | A1 19831201 | ES 1982-514039 | 19820715 |
| ZA 8205054 | A 19840229 | ZA 1982-5054 | 19820715 |
| CA 1166249 | A1 19840424 | CA 1982-407344 | 19820715 |
| HU 30918 | A2 19840428 | HU 1982-2303 | 19820715 |

| CS 236486 | B2 | 19850515 | CS | 1982-5445 | | 19820715 |
|------------------------|---------|------------|------|-------------|----|----------|
| AT 16491 | T | 19851115 | AT | 1982-303730 | | 19820715 |
| US 4764610 | A | 19880816 | US | 1986-911420 | | 19860925 |
| US 4836846 | A | 19890606 | US | 1988-179558 | | 19880408 |
| PRIORITY APPLN. INFO.: | | | US | 1981-283928 | Α | 19810716 |
| | | | US | 1982-382876 | Α | 19820601 |
| | | | ΕP | 1982-303730 | Α | 19820715 |
| | | | US | 1984-671071 | A1 | 19841113 |
| | | | US | 1986-911420 | A3 | 19860925 |
| OTHER COURCE(C). | CACDEAC | T 99.5650. | MADI | DAT 99.5650 | | |

OTHER SOURCE(S):

CASREACT 99:5650; MARPAT 99:5650

GΙ

$$R^2$$
 R^3
 R^7
 R^5
 R^6
 R^7
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 R^6

Indolesulfonamides I and II [X = N, CH; R = H, alkyl, SO2Ph; R1 = H, alkyl, (un)esterified CO2H, carbamoyl, acyl, alkylsulfonyl, sulfamoyl; R2 = H, F, Cl, Br, alkyl, alkoxy, NO2; R3 = H, Cl, Br; R4 = H, Me; R5 = Me, OMe; R6 = Me, OMe, OEt, CH2OMe, Cl, H, Et, NMe2; R7 = H, (un)substituted alkyl, alkylsulfonyl, sulfamoyl] were prepd. Thus Me 1-methyl-1H-2-indolecarboxylate was treated with ClSO2NCO and 2-amino-4,6-dimethylpyrimidine to give I (X = CH, R = R5 = R6 = Me, R1 = CO2Me, R2-R4 = H) which at 0.4 kg/ha pre-emergence gave 100% control of e.g. nutsedge.

IT 85953-37-3P 85953-38-4P 85953-45-3P 85953-46-4P 85953-47-5P 85953-48-6P 85963-87-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and herbicidal activity of)

RN 85953-37-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-38-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4-methoxy-6-methyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-45-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 85953-46-4 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 85953-47-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethoxy-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 85953-48-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 85963-87-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

IT 85953-49-7P 85953-50-0P 85953-51-1P

85963-86-6P 85963-88-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 85953-49-7 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-50-0 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethoxy-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 85953-51-1 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4,6-dimethyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN .85963-86-6 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[[(4-methoxy-6-methyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 85963-88-8 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1978:563592 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER:

89:163592

TITLE:

2,5-Dihydro-1,2-thiazino[5,6-b]indole-3-carboxamide

1,1-dioxides

INVENTOR(S):

Trummlitz, Guenter; Engel, Wolfhard; Seeger, Ernst;

Haarmann, Walter; Engelhardt, Guenther

PATENT ASSIGNEE(S):

Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.

SOURCE:

Ger. Offen., 74 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|-------------------------|---------|----------------------|-----------------|---|----------------------|
| DE 2704485 | A1 | 19780810 | DE 1977-2704485 | | 19770203 |
| SE 7714833 | A | 19780804 | SE 1977-14833 | | 19771228 |
| SE 436749 | В | 19850121 | | | |
| SE 436749 | C | 19850502 | | | |
| AT 7800111 | Α | 19790815 | AT 1978-111 | | 19780109 |
| AT 355585 | В | 19800310 | | | |
| US 4137313 | Α | 19790130 | US 1978-872889 | | 19780127 |
| SU 654173 | A3 | 19790325 | SU 1978-2571747 | | 19780130 |
| CS 194195 | B2 | 19791130 | CS 1978-650 | | 19780131 |
| FI 7800324 | A | 19780804 | FI 1978-324 | | 19780201 |
| FI 62097 | В | 19820730 | | | |
| FI 62097 | C | 19821110 | | | |
| DD 134767 | A5 | 19790321 | DD 1978-203510 | | 19780201 |
| HU 175550 | В | 19800828 | HU 1978-TO1069 | | 19780201 |
| IL 53948 | Α | 19801026 | IL 1978-53948 | | 19780201 |
| BE 863588 | A1 | 19780802 | BE 1978-184854 | | 19780202 |
| DK 7800484 | Α | 19780804 | DK 1978-484 | | 19780202 |
| DK 150517 | В | 19870316 | | | |
| DK 150517 | C | 19871019 | | | |
| NO 7800370 | A | 19780804 | NO 1978-370 | | 19780202 |
| NO 148490 | В | 19830711 | | | |
| NO 148490 | C | 19831019 | | | |
| NL 7801183 | A | 19780807 | NL 1978-1183 | | 19780202 |
| JP 53098998 | A | 19780829 | JP 1978-11044 | | 19780202 |
| JP 61011235 | В | 19860401 | FO 3070 466FFF | | 1070000 |
| ES 466555 | A1 | 19781001 | ES 1978-466555 | | 19780202 |
| AU 7832931 | A | 19790809 | AU 1978-32931 | | 19780202 |
| AU 516178 ZA 7800630 | B2 A | 19810521 19791031 | ZA 1978-630 | | 10700202 |
| GB 1569238 | A | 19800611 | GB 1978-4304 | | 19780202 19780202 |
| PL 109705 | B1 | 19800611 | PL 1978-204401 | | 19780202 |
| CA 1088064 | A1 | 19800030 | CA 1978-296063 | | 19780202 |
| CH 639389 | A5 | 19831115 | CH 1978-1147 | | 19780202 |
| FR 2379542 | A1 | 19780901 | FR 1978-3158 | | 19780202 |
| FR 2379542 | B1 | 19821203 | 110 1370 3130 | | 13700203 |
| ES 469110 | A1 | 19781116 | ES 1978-469110 | | 19780425 |
| ES 469111 | A1 | 19781116 | ES 1978-469111 | | 19780425 |
| ES 469112 | A1 | 19781116 | ES 1978-469112 | | 19780425 |
| ES 469113 | A1 | 19781116 | ES 1978-469113 | | 19780425 |
| AT 7902695 | A | 19790815 | AT 1979-2695 | | 19790411 |
| AT 355590 | В | 19800310 | | | |
| AT 7902696 | A | 19790815 | AT 1979-2696 | | 19790411 |
| AT 355591 | В | 19800310 | | | |
| PRIORITY APPLN. INFO.: | | | DE 1977-2704485 | Α | 19770203 |
| | | | AT 1978-111 | A | 19780109 |
| | | | | | |

MARPAT 89:163592

GI

OTHER SOURCE(S):

Thiazinoindoles I (R = optionally substituted or condensed 2-thiazolyl, 2-pyridyl, methyl-2-pyridyl, Ph, optionally substituted by F, Cl, Br, Me, Et, CF3, OMe; R1 = H, Me, Et; R2 = Me, Et; R3 = H, F, Cl, Br, OMe, Me, Et, CF3) were prepd. Thus, the indole II (R4 = NH2, R5 = CO2Me) was treated with NaOMe to give II (R4R5 = NNaCO), which was treated with CClCH2CO2Me to give II [R4R5 = N(CH2CO2Me):CO]. Treatment of the latter compd. with NaOMe gave II [R4R5 = NHC(CO2Me):COH], which was N-methylated and treated with 2-aminothiazole to give I (R = 2-thiazolyl, R1 = R2 = Me, R3 = OH; III). At 2 .times. 10-5 mol/L III gave 96% inhibition of blood platelet aggregation.

IT 3678-05-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclization of)

RN 3678-05-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

IT 67929-63-9P 67929-72-0P 67930-02-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

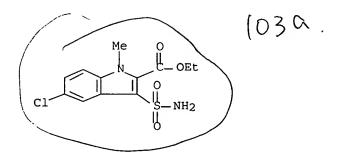
(prepn. and reaction of, with chloroacetate)

RN 67929-63-9 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-ethyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 67929-72-0 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-5-chloro-1-methyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 67930-02-3 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1,5-dimethyl-, ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1965:480541 CAPLUS Full-text

DOCUMENT NUMBER:

63:80541

ORIGINAL REFERENCE NO.:

63:14818e-h,14819a

TITLE:

Preparation of 3-[(alkylcarbamoyl)sulfamoyl]-1-

alkylindole-2-carboxylic acids and their esters

PATENT ASSIGNEE(S):

SOURCE:

9 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

Unavailable

Upjohn Co.

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | | KIND | DATE | APPLICATION NO. | DATE |
|-----------------|--------|------|----------|-----------------|----------|
| | | | | | |
| NL 6411635 | | | 19650408 | NL 1964-11635 | 19641007 |
| FR 1410699 | | | | FR | |
| US 3209011 | | | | US | |
| PRIORITY APPLN. | INFO.: | | | US | 19631007 |

GI For diagram(s), see printed CA Issue.

The prepd. compds. I(R,R2 = lower alkyl, R1 = H or lower alkyd showed sedative properties; in addn. the esters (R1 = alkyl) showed diuretic and the acids (R1 = H) antifungal activity (e.g. against Trichophyton rubrum). Further the compds., characterized by a high radiation absorption in the 280-800 m.mu. range, were useful as sun-protecting agents. Thus, 5 ml. SOCl2 was added to 1.89 g. solid 1-methylindole-2-carboxylic acid Me ester (II) the soln. (solidifying after strong gas evolution) set aside 5 min., 15 ml. anhyd. Et20 added, and the solid compd. triturated, filtered, washed (Et20) and dried 10 min. in vacuo, to give 2.45 g. 3-(chlorosulfinyl) deriv. of II, m. 85-8.degree. (decompn.). The deriv. (prepd. from 0.2 mole II) was added with stirring in 3 min. at -50.degree. to a soln. of 150 ml. liquid NH3 in 300 ml.

Et20, the suspension stirred 5 min., the cold bath replaced by H20 to evap. the excess NH3, the solvent evapd. in vacuo, 200 ml. H2O added, and the ppt. washed 3 times with HO (100 ml. portions), to give 47.5 g. 3-(aminosulfinyl) deriv. of II m. 111-16.5.degree. (200 ml. MeOH-H2O (1:1)). With occasional cooling (to keep the temp. at 22-5.degree.) a soln. of 5.25 g. KMnO4 in 110 ml. H2O was added in 15 min. to a stirred soln. of 12.6 g. of this Me ester in 500 ml. Me2CO, the whole stirred 1.5 hrs., 5 ml. satd. aq. Na2SO3 soln. added, the mixt. filtered, the ppt. washed (Me2 CO), the filtrate and the washliquids joined, concd. in vacuo at 35.degree., the aq. suspension filtered and the ppt. washed (H2O) and dried, to give 8.3 g. sulfamoyl deriv. of II, m. 168.5-70.degree. (MeOH). Successively 194 ml. Et3N and 19.8 g. BuNCO were added to a suspension of 53.7 g. of this Me ester in 50 ml. HCONMe2, the mixt. stirred 22 hrs. to give 2 clear layers, 350 ml. H2O added, the whole stirred 30 min., extd. with 100 ml. Et2O, with cooling the clear aq. layer acidified (5% HCl), the oil kept a few min. to solidify, and the product filtered and washed (H2O), to give 46.75 g. 3-[(butylcarbamoyl)sulfamoyl] deriv, of II m. 191-2.degree. (MeOH), uv spectrum (95% EtOH) showing .lambda.max at 210 (32,400) and peaks at 236 (11.350) and 292 (10.900). A soln. of 36.6 g. of this deriv. in aq. NaOH (200 ml. 1N NaOH dild. to 700 ml.) was heated 2 hrs. on a steam-bath, the mixt. cooled with ice, acidified with 35 ml. concd. HCl, and the ppt. filtered and washed (H2O), to give 27 g. 3-[(butylcarbamoyl)sulfamoyl]-1- methylindole-2-carboxylic acid m. 194.degree. (gas evolved) (aq. Me2CO), uv spectrum (95% EtOH) .lambda.max 212 (33.950) with peaks at 222 (29.450), 282 (10.050), 286 (10.650) and 300 (5.900). A no. of other compds. was prepd. similarly, however no phys. data given. 875830-38-9, Indole-2-carboxylic acid, 3-(carbamoylsulfamoyl)-(derivs.)

Indole-2-carboxylic acid, 3-(carbamoylsulfamoyl)- (7CI) (CA INDEX NAME)

875830-38-9 CAPLUS

IT

RN

CN

RN 3678-05-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 3954-44-7 CAPLUS

CN Indole-2-carboxylic acid, 3-[(butylcarbamoyl)sulfamoyl]-1-methyl-, methyl ester (7CI, 8CI) (CA INDEX NAME)

L5 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1965:480540 CAPLUS Full-text

DOCUMENT NUMBER:

63:80540 63:14818c-e

ORIGINAL REFERENCE NO.: TITLE:

Derivatives of 3,3'-dithiobis[indole-2-carboxylic

acid] dihydrazides

INVENTOR(S):

Szmuszkovicz, Jacob

PATENT ASSIGNEE(S): SOURCE:

Upjohn Co.

DOCUMENT TYPE:

4 pp. Patent

LANGUAGE:

Unavailable

DANGUAGE.

Ullavali

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|-------|--------------|-----------------|----------|
| | | | | |
| US 3180875 | | 19650427 | US 1963-314484 | 19631007 |
| PRIORITY APPLN. INFO.: | | | US | 19631007 |
| OTHER COIDCE(C). | CACDE | NCT 63.90540 | | |

OTHER SOURCE(S): CASREACT 63:80540

Thionyl chloride (5 cc.) was added to 1.89 g. methyl 1-methylindole-2-carboxylate to give methyl 1-methyl-3-(chlorosulfinyl)indole-2-carboxylate (I), m. 85-8.degree. (decompn.). I, prepd. from 0.8 mole methyl 1-methylindole-2-carboxylate, was added over 2 hrs. to a stirred soln. of 51.3 g. anhyd. NH2NH2, in 4 1. of Et2O while cooling at 5.degree. to yield 70% 3,3'-dithiobis(1-methylindole-2-carboxylic acid) dimethyl ester (II), m. 199-

201.degree.. A mixt. of 27.5 g. II and 125 cc. NH2NH2.H2O was refluxed in an oil bath with stirring for 1 hr. and the mixt. kept 12 hrs. to yield 80% 3,3-dithiobis(1-methylindole-2-carboxylic acid)dihydrazide (III), m. 236.5-38.degree.. A mixt. of 15 g. III and 3 1. Me2CO was refluxed 2.5 hrs. to give 3,3'-dithiobis(1-methylindole-2-carboxylic acid) bis(isopropylidenehydrazide), m. 219-20.degree.. Similarly prepd. was 3,3'-dithiobis(1-methylindole-2-carboxylic acid) bis(benzylidenehydrazide), m. 222-3.degree..

RN 875830-38-9 CAPLUS

CN Indole-2-carboxylic acid, 3-(carbamoylsulfamoyl)- (7CI) (CA INDEX NAME)

L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1964:23245 CAPLUS Full-text

DOCUMENT NUMBER: 60:23245

ORIGINAL REFERENCE NO.: 60:4088h,4089a-c

TITLE: Reaction of indole derivatives with thionyl and

sulfuryl chlorides

AUTHOR(S): Szmuszkovicz, Jacob

CORPORATE SOURCE: Upjohn Co., Kalamazoo, MI

SOURCE: Journal of Organic Chemistry (1964), 29(1), 178-84

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal Unavailable

OTHER SOURCE(S): CASREACT 60:23245
GI For diagram(s), see printed CA Issue.

Reaction of 1-methylindole-2-carboxylic acid, the corresponding methyl ester (I), and of Et indole-2-carboxylate with thionyl chloride afforded sulfinyl chlorides (II, III, and IV, resp.). Thionyl chloride and N,1-dimethylindole-2-carboxamide led to sulfide (V, R = CONHMe) and imide sulfoxide (VI). III was converted to several sulfinamides (VII) on treatment with amines. VII were oxidized with permanganate to sulfonamides (VIII). Treatment of III with hydrazine in the cold gave disulfide (IX, R = CO2Me) (X), which was transformed to IX (R = CONHNH2) on heating with hydrazine. Monosulfide (V, R = CO2Me), disulfide X, and trisulfide XI were obtained from the reaction of I with sulfur monochloride. Reaction of 1-methylindole-2-carboxylic acid hydrazide with sulfuryl chloride led to the dichloro compd. (XII), and I with sulfuryl chloride afforded the tetrachloro compd. (XIII) and the hexachloro compd. (XIV).

IT 3678-04-4P, Indole-2-carboxylic acid, 3 [(butylcarbamoyl)sulfamoyl]-1-methyl- 3678-05-5P,
 Indole-2-carboxylic acid, 1-methyl-3-sulfamoyl-, methyl ester
 3954-44-7P, Indole-2-carboxylic acid, 3 [(butylcarbamoyl)sulfamoyl]-1-methyl-, methyl ester 91088-34-5P,
 Indole-2-carboxylic acid, 3-sulfamoyl-, ethyl ester 91567-95-2P,
 Indole-2-carboxylic acid, 1-methyl-3-(methylsulfamoyl)-, methyl ester
 91643-82-2P, Indole-2-carboxamide, N,1-dimethyl-3 (methylsulfamoyl)- 92109-30-3P, Indole-2-carboxylic acid,
 3-(dimethylsulfamoyl)-1-methyl-, methyl ester

RL: PREP (Preparation)

(prepn. of)

RN 3678-04-4 CAPLUS

CN Indole-2-carboxylic acid, 3-[(butylcarbamoyl)sulfamoyl]-1-methyl- (7CI, 8CI) (CA INDEX NAME)

RN 3678-05-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 3-(aminosulfonyl)-1-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 3954-44-7 CAPLUS

CN Indole-2-carboxylic acid, 3-[(butylcarbamoyl)sulfamoyl]-1-methyl-, methyl ester (7CI, 8CI) (CA INDEX NAME)

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RN 91088-34-5 CAPLUS

CN Indole-2-carboxylic acid, 3-sulfamoyl-, ethyl ester (7CI) (CA INDEX NAME)

RN 91567-95-2 CAPLUS

RN 91643-82-2 CAPLUS

CN Indole-2-carboxamide, N,1-dimethyl-3-(methylsulfamoyl)- (7CI) (CA INDEX NAME)

RN 92109-30-3 CAPLUS

CN Indole-2-carboxylic acid, 3-(dimethylsulfamoyl)-1-methyl-, methyl ester (7CI) (CA INDEX NAME)

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
|--|------------|---------|
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 150.43 | 323.64 |
| | | |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -29.64 | -29.64 |
| | | |

STN INTERNATIONAL LOGOFF AT 12:21:08 ON 01 JUN 2007